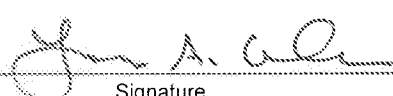


PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional)	
<div style="border-bottom: 1px solid black; padding-bottom: 5px;">I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]</div> <div style="display: flex; justify-content: space-between;"><div style="width: 40%;"><div style="border-bottom: 1px solid black; padding-bottom: 5px;">on _____</div><div style="border-bottom: 1px solid black; padding-bottom: 5px;">Signature _____</div><div style="border-bottom: 1px solid black; padding-bottom: 5px;">Typed or printed name _____</div></div><div style="width: 60%; border-left: 1px solid black; padding-left: 5px;"><div style="border-bottom: 1px solid black; padding-bottom: 5px;">Application Number</div><div style="border-bottom: 1px solid black; padding-bottom: 5px;">09/610,722</div><div style="border-bottom: 1px solid black; padding-bottom: 5px;">First Named Inventor</div><div style="border-bottom: 1px solid black; padding-bottom: 5px;">KRISHNA et al.</div><div style="display: flex; justify-content: space-between;"><div style="width: 45%; border-bottom: 1px solid black; padding-bottom: 5px;">Art Unit</div><div style="width: 55%; border-bottom: 1px solid black; padding-bottom: 5px;">Examiner</div></div><div style="display: flex; justify-content: space-between;"><div style="width: 45%; border-bottom: 1px solid black; padding-bottom: 5px;">2433</div><div style="width: 55%; border-bottom: 1px solid black; padding-bottom: 5px;">Colin, Carl G.</div></div></div></div>		1875.4310002	
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p>			
<p>I am the</p> <div style="display: flex; align-items: flex-start;"><div style="width: 30px; text-align: center;"><input type="checkbox"/></div><div>applicant/inventor.</div></div> <div style="display: flex; align-items: flex-start;"><div style="width: 30px; text-align: center;"><input type="checkbox"/></div><div>assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</div></div> <div style="display: flex; align-items: flex-start;"><div style="width: 30px; text-align: center;"><input type="checkbox"/></div><div>attorney or agent of record. Registration number _____</div></div> <div style="display: flex; align-items: flex-start;"><div style="width: 30px; text-align: center;"><input checked="" type="checkbox"/></div><div>attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 <u>50,633</u></div></div>		<div style="border-bottom: 1px solid black; padding-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">Lori A. Gordon</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">(202) 371-2600</div> <div style="border-bottom: 1px solid black; padding-bottom: 5px;">August 24, 2010</div>	
<p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p>			
<div style="display: flex; align-items: center;"><div style="width: 30px; text-align: center;"><input type="checkbox"/></div><div>*Total of _____ forms are submitted.</div></div>			

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

KRISHNA *et al.*

Appl. No.: 09/610,722

Filed: July 6, 2000

For: **Classification Engine in a
Cryptography Acceleration Chip**

Confirmation No.: 5437

Art Unit: 2433

Examiner: Colin, Carl G.

Atty. Docket: 1875.4310002

Arguments to Accompany the Pre-Appeal Brief Request for Review

Commissioner for Patents

PO Box 1450

Alexandria, VA 22313-1450

Sir:

Applicants hereby submit the following Arguments, in five (5) or less total pages, as attachment to the Pre-Appeal Brief Request for Review Form (PTO/SB/33). A Notice of Appeal is concurrently filed.

Applicants' arguments in the Amendment and Reply under 37 C.F.R. § 1.111 filed on November 23, 2009 (hereinafter "Reply"), were not properly considered or responded to by the Examiner in the final Office Action mailed February 24, 2010 (hereinafter the "Final OA"). The Examiner's response was legally and factually deficient because the Examiner failed to provide sufficient evidence that claims 46-70 failed to comply with the written description requirement of 35 U.S.C. § 112, first paragraph, and because the Examiner failed to show that the combination of U.S. Patent No. 5,870,479 to Feiken, *et al* ("Feiken") and U.S. Patent No. 6,791,947 to Oskouy, *et al* ("Oskouy") taught each and every feature of independent claims 46 and 64.

1. *Applicants' Specification Conveys with Reasonable Clarity to Persons Skilled in the Art that Applicants Were in Possession of the Features of Claims 46-70*

In the Final Office Action, the Examiner rejected claims 46-70 under 35 U.S.C. § 112, first paragraph, for allegedly failing to comply with the written description requirement. Specifically, the Examiner states

In the original specification, Examiner was not able to find a classification module determining security association information with each data packet in a plurality of data packets associated with a data flow between a source and destination simultaneously. ... Examiner is not convinced that "*four datagrams can be processed simultaneously and out of order to keep throughput at full rated wirespeed*" as cited by Applicant fully supports the claim limitation as claimed above ...

(Final Office Action, p. 5.) Applicants respectfully disagree.

The specification discloses, for example, an Advanced Classification Engine (ACE) that "functions as a complete hardware IPsec Security Association Database lookup engine." (Specification, 21:3-4.) Thus, contrary to the Examiner's position, the processing of the ACE defined in the specification includes determining security association information for a data packet.

The specification further states that the ACE has "fully pipelined non-blocking out-of-order design. Four datagrams can be *processed simultaneously* and out of order to keep throughput at fully rated wirespeed." (Specification, p. 21, ll. 18-20.) (emphasis added.) In addition, ACE implements non-blocking out-of-order processing of up to four packets." (Specification, 25:3-6.) Because the ACE processing includes security association determination, this passage discloses performing this security association determination processing on multiple datagrams simultaneously.

Accordingly, Applicants' specification sufficiently describes "wherein the classification module is configured to determine the security association information for the plurality of data packets simultaneously" as recited in independent claim 46 and "simultaneously determining security association information associated with each data packet in the plurality of data packets in the data flow," as recited in independent claim 64.

Reconsideration and withdrawal of this rejection as to independent claims 46 and 64 and their respective dependent claims 47-63 and 65-70 are respectfully requested.

2. The Combination of Feiken and Oskouy Fails to Teach Each and Every Feature of Independent Claims 46 and 64

In the Final Office Action, the Examiner maintained the rejection of claims 46-49, 55-57, 60, and 64-66 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Feiken in view of Oskouy. Because the combination of Feiken and Oskouy fails to disclose each and every feature of independent claims 46 and 64, Applicants traverse and request that the rejection be withdrawn.

In Feiken, a "data packet which enters the device 1 is first temporarily stored in the buffer 10. During this time, the header of the packet is copied to the identification unit 14, where the channel (in the case of ATM, the virtual channel or the virtual path) of the data packet is determined." (Feiken, 3:66 - 4:3.) Using this identification, the control unit

"activates the other sections of the device." (Feiken, 4:3-7.) In Feiken, "the buffer 10 is instructed to release the data packet concerned, while the memory 13 is instructed to place the information belonging to said channel (for example, the key and the status of the encrypting/decrypting procedure, and optionally the software of a processing) on the bus 15." (Feiken, 4:8-14.)

Thus, Feiken fails to disclose at least the feature of "a classification module in the device that determines security association information associated with each data packet in a plurality of data packets associated with a data flow between a source and destination, wherein the classification module is configured to determine the security association information for the plurality of data packets simultaneously," as recited in independent claim 46 and "receiving, in the device, at least a portion of a header for each data packet in a plurality of data packets associated with a data flow between a source and destination; simultaneously determining security association information associated with each data packet in the plurality of data packets in the data flow," as recited in independent claim 64.

Furthermore, the Examiner acknowledges that Feiken "does not explicitly state that the classification module is configured to determine the security association information associated for the plurality of data packets simultaneously." (Final OA, pp.6-7.) However, the Examiner alleges that Oskouy provides this missing teaching. Applicants disagree.

a. *Oskouy fails to disclose determination of security association information for a data packet.*

Oskouy generally describes a "method and apparatus for in-line processing a data packet while routing the packet through a router in a system transmitting data packets between a source and a destination over a network including the router." (Oskouy, Abstract.) Nowhere does Oskouy disclose or even mention providing security processing.

Applicants further disagree with the Examiner's understanding of the term "security association." As discussed in Applicant's November 2009 Reply, the term security association has a well-known meaning to persons of skill in the art. A security association provides a mechanism to associate security services and key(s) with traffic to be protected and the parties with whom traffic is being exchanged. The specification repeatedly explains that security association information includes at a minimum cryptographic keys. (Specification, 8:9-10; 11:1-2; 12:3-5; 23: 6-10.) This is supported by

the Internet Engineering Task Force (IETF) that defines a security association and outlines required security association information to be stored in a security association database for retrieval. *See e.g.*, IETF RFC 2401. A copy of IETF RFC 2401 is attached as Exhibit A. In RFC 2401, the IETF required security association information includes sequence number, anti-reply data, authentication algorithm and keys for IPSec authentication header (AH) implementations and IPSec encapsulating security payload (ESP) implementations, and encryption algorithm and keys for IPSec ESP implementation, and lifetime of the security association. *See* IETF RFC 2401, p. 21.

The Examiner points to the Security Association Table in Applicant's Specification and appears to conclude that "IP address, port and protocol" are security association information. This is not accurate. The IP address, port and protocol are "selectors" used to identify a security association. *See* IETF RFC 2401, § 4.4.2. The specification further explains that "classification occurs based on a flexible set of selectors as follows: Quintuple of <src IP addr, dst IP addr, src port, dst port, protocol> ..." (Specification, 13:11-16.) Thus, these fields are present in the Security Association Table because they are the selectors used to identify the selected security association record. These fields are not security association information as would be understood by a person of skill in the art.

The Examiner further points to col. 5, lines 34-41 of Oskouy which mentions reading a key from the packet. Applicants note that the key referred to in Oskouy is not an encryption key and is not used for any security processing. Accordingly, the key in Oskouy is not "security association" information. Accordingly, Oskouy does not disclose "determin[ing] security association information" associated with a data packet as recited in independent claims 46 and 64.

b. Oskouy fails to disclose simultaneously determining security association information associated with each data packet.

In the Final Office Action, the Examiner points to the following disclosure of Oskouy as teaching simultaneously determining security association information:

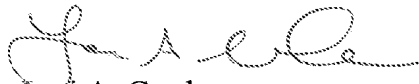
Packet pre-processing is accelerated by using multiple embedded micro-code engines to perform L2 header processing for received packets. Pre-processing includes segmentation of the packets into cells and distribution of the cells across memory within the router while processing L3 header data in parallel.

(Oskouy, 4:24-29.) Applicants disagree with the Examiner's understanding of Oskouy. Oskouy does not disclose that multiple packets are processed in parallel. Oskouy explains that L3 header processing (of a single packet) is "performed in parallel to the packing of data by cell packeterizer 391." (Oskouy, 10:43-45.) Nowhere does Oskouy disclose performing L3 header processing on multiple packets in parallel. Additionally, the multiple micro-code engines are used in the processing of a single header (not multiple headers in parallel). (*See* Oskouy, 8:36-51.) Accordingly, Feiken also fails to disclose at least the feature of "a classification module in the device that determines security association information associated with each data packet in a plurality of data packets associated with a data flow between a source and destination, wherein the classification module is configured to determine the security association information for the plurality of data packets simultaneously," as recited in independent claim 46 and "receiving, in the device, at least a portion of a header for each data packet in a plurality of data packets associated with a data flow between a source and destination; simultaneously determining security association information associated with each data packet in the plurality of data packets in the data flow," as recited in independent claim 64.

Based on the above, Applicants respectfully request that the rejection of independent claim 46 and its dependent claims as allegedly being obvious over the combination Feiken and Oskouy and/or Ellis and Ober and independent claim 64 and its dependent claims as allegedly being obvious over the combination Feiken and Oskouy and/or Leung be withdrawn.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



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Date: August 24, 2010

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